

CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

- 1 1. A method for automatically determining awareness settings among people
2 in a distributed working environment comprising the steps of:
3 receiving real-time data produced by an event; and
4 automatically adjusting a distance according to a level of privacy
5 desired by individual users and a need of a collaborative project to have some
6 shared information about individual user activities using an elastic spring
7 energy model.

- 1 2. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein the
3 step of automatically adjusting a distance is performed by a multi-agent
4 system that automatically and selectively provides perceived information to
5 others based on perceived events or status associated with others.

- 1 3. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 2, wherein the
3 elastic spring energy model governs reaction of an information system in real
4 time when events or status changes.

- 1 4. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 2, wherein each
3 agent acts on its user's behalf to adjust an awareness level among different
4 users.

- 1 5. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, further
3 comprising the step of dividing communications between different users into
4 different channels and specifying a clearness level for each channel.
- 1 6. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein the
3 elastic spring model is a dynamic model so that the step of automatically
4 adjusting a distance takes into consideration events which happen at each
5 user's site.
- 1 7. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein the
3 elastic spring model takes into consideration a user's frustration level if
4 information about the user is revealed to another on the occurrence of a
5 particular event.
- 1 8. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein the
3 elastic spring model determines potential energy vectors which encode a
4 user's preference on distances.
- 1 9. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein the
3 elastic spring model determines potential energy vectors which encode
4 awareness requirements for a collaborative task.
- 1 10. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein the

3 elastic spring model determines potential energy vectors which encode a
4 user's preference on distances and awareness requirements for a collaborative
5 task.

1 11. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 1, wherein a
3 matrix and vector look up model is used to determine the distances among
4 distributed users, the values of the matrix and the vector encoding the
5 preferences of the user and the preference requirements of the other user who
6 receives the awareness information.

1 12. The method for automatically determining awareness settings among
2 people in a distributed working environment recited in claim 11, wherein the
3 matrix and vector additionally encode the preferences of the task and the
4 preferences of the organization,